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RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Ex parte JOSEPH S. STAM,  
KEITH H. BERENDS,  
GREGORY S. BUSH,  
JEREMY B. BANKS,  
and ERIC J. WALSTRA

Appeal 2008-2860  
Application 10/615,317  
Technology Center 2800

Oral Hearing Held: Thursday, January 15, 2009

Before BRADLEY R. GARRIS, MICHAEL P. COLAIANNI, and  
JEFFREY B. ROBERTSON, Administrative Patent Judges

ON BEHALF OF THE APPELLANTS:

**JAMES E. SCHULTZ, ESQUIRE**  
Gentex Corporation  
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Also Present:

MR. GAGLIARDI (the Examiner)

1           The above-entitled matter came on for hearing on Thursday,  
2   January 15, 2009, commencing at 9:00 a.m., at the U.S. Patent and  
3   Trademark Office, 600 Dulany Street, Alexandria, Virginia, before  
4   Ashorethea Cleveland, Notary Public.

5           THE USHER: Good morning. Calendar Number 30, Mr.  
6   Schultz.

7           JUDGE GARRIS: Good morning, Mr. Schultz.

8           MR. SCHULTZ: Good morning.

9           JUDGE GARRIS: Welcome to the Board. As you know, you  
10   have about 20 minutes. Before you begin, please introduce the person with  
11   you.

12          MR. SCHULTZ: Actually, I was just commenting. This is the  
13   first time in all of the appeals I've done that the Examiner actually came.

14          MR. GAGLIARDI: Yeah. I'm actually the Examiner. I had  
15   checked the box on the Examiner's answers.

16          JUDGE GARRIS: Very good. Welcome to the Board.

17          MR. GAGLIARDI: Thank you.

18          JUDGE GARRIS: You will have 20 minutes.

19          Mr. Examiner, did you want to also speak?

20          MR. GAGLIARDI: I can make a couple of comments, if you  
21   like. I mean, I don't have to.

22          JUDGE GARRIS: It's entirely up to you. If we have questions  
23   then we will go ahead and ask you.

24          We will give you 20 minutes; and if the Examiner does have  
25   something to say or if we have questions of him, you will be given an  
26   opportunity to respond.

1 MR. SCHULTZ: Thank you. Very good.

2 JUDGE GARRIS: Please sit down and we'll go ahead.

3 MR. SCHULTZ: Very good. Thank you all.

4 JUDGE GARRIS: We are familiar with your case generally;  
5 so, please keep that in mind when making your comments.

6 MR. SCHULTZ: Very good. Thank you all for being willing  
7 to listen to 20 minutes worth of explanation, or maybe clarification would be  
8 what I'm hoping to achieve this morning.

9 First and foremost, let me just take a moment. Gentex is the  
10 first corporation worldwide, not just in the United States but worldwide to be  
11 successful in commercializing an automatic headlight control system and  
12 that is a product that Gentex has been supporting financially to the point of  
13 attempting to get a lot of claim patent protection on the concept primarily of  
14 headlight control.

15 Now the corporation is spanning into more vision-based  
16 systems such as pedestrian detection, sign recognition, which we will talk  
17 about here briefly, and other vision systems like collision avoidance,  
18 accident reconstruction, a wide array of vision-based vehicle systems.

19 With that in mind, one of the areas that has been pretty well  
20 studied -- and an example of which is the Holtz et al reference which is the  
21 primary reference, the only actual reference that the Examiner relies upon  
22 for rejections. That is basically a night vision system that's fairly well  
23 known not only in this reference but many manufacturers have proposed  
24 systems that would project non-visible light such as infrared in this  
25 particular context and then have an infrared camera that would be actually  
26 detecting that what your eyes obviously cannot see. The infrared is

1 intentionally nonvisible and then it would display what your eyes can  
2 otherwise not see thereby improving night vision. That is a fairly well  
3 known concept, I believe.

4 The Holtz reference. What it brought to the table is an attempt  
5 to filter out the other vehicles that would have those same types of systems  
6 such that if they were projecting the infrared it wouldn't impact the vehicle  
7 that -- the Holtz references the actual controlled vehicle as we describe it.  
8 So, again, that's well known technology.

9 One of the limitations that we added during the course of  
10 prosecution and truly to go to the heart of our invention, Gentex's invention,  
11 is the fact that we are distinguishing vehicular light sources from  
12 non-vehicular light sources.

13 There's absolutely no teaching within Holtz to attempt to  
14 distinguish one from the other. There isn't any desire. It's just purely to  
15 improve the night vision as a broad brush whether it's vehicular or non.  
16 They're all the same in terms of whether this system enhances the ability to  
17 do it or not.

18 First and foremost, the rejection that stands twofold is a 112  
19 rejection; and actually, I'm somewhat confused in that context in that the 112  
20 rejection is written description and I pointed to --

21 JUDGE GARRIS: Are you sure about that? As I read the  
22 answer, the 112 rejection is based on the second paragraph, as being  
23 indefinite, particularly the last two lines.

24 MR. SCHULTZ: Yes. Certainly. I apologize for the confusion  
25 there. Yes. Indefiniteness. Written description. Enablement I guess is  
26 somewhat -- is confused in my mind because actually the description is -- for

1 example, in the paragraphs I point to, it specifically talks about the fact that  
2 you would be able to detect a sign, for example, non-vehicular light source,  
3 by pulsing the non-visible light, infrared, and if the pulses match what you're  
4 detecting, it is just by the very nature the reflections. It's not actual light  
5 source itself. It's truly the only way that can happen as if it's reflecting what  
6 you've emitted, quite well described I believe in paragraphs 50 through 55,  
7 two different contexts and that in a core of this invention -- it sums it up.

8           It's actually completely different than if a car is coming at you,  
9 a vehicular light source that is emitting light. No matter what we would do  
10 with our light source that light is going to stay constant. It's a vehicular light  
11 source. We cannot control that because there is no communication in our  
12 vehicle. So, it will be a constant source. Our source is going to be varying  
13 in coordination with the image-capture device; thereby, you would know it's  
14 a vehicular light source or some light source, period, not the reflection of the  
15 sign.

16           So, first and foremost, you're exactly right. Indefiniteness is the  
17 112 rejection that's outstanding.

18           So, without appreciating or getting beyond that, I'm not certain  
19 how the 102-E rejections could be made because certainly you wouldn't take  
20 that to be a patentable feature distinct from Holtz et al or any other night  
21 vision type of a reference.

22           Truly there is nothing else that is the heart of our invention; and  
23 so, if we can move beyond that or if there are any questions that I could  
24 clarify where in the specification we make that definite I believe truly -- I've  
25 read back through the specification and I read back through the two  
26 embodiments that we describe and paragraphs I point to and there are two

different areas that we actually definitively talk about, the desire to distinguish vehicular from non-vehicular light sources.

JUDGE GARRIS: Let me ask if there are questions from anyone?

JUDGE COLAIANNI: No questions.

JUDGE ROBERTSON: No questions.

JUDGE GARRIS: Why don't you go ahead then and continue with your discussion of the prior art rejection?

MR. SCHULTZ: Then we move to the 102(e) reference. At least in one reading of the Examiner's rejections you could take away that he's discounting the distinguishing vehicular light sources from non as just a purely functional limitation and therefore has no distinguishing ability; you know, that there is nothing in the claim structurally to distinguish the prior art from our invention.

I would have to say that within the new realm of computer-controlled mechanisms with C-MOS image sensors, the hardware is always the same, truly. You're going to have the same computer. You're going to have the same image sensors. You are going to have maybe either a parallel or a serial connection. So, structurally there it is.

Functionally, which I have pointed to in many portions of the MPEP, truly a functional limitation is read as a whole with the structure to impart distinguishing features from the prior art.

So, again, that is the essence of our invention, a completely different outcome, the ability or actually distinguishing vehicular light sources from non-vehicular light sources that is the essence of the invention, not at all taught in Holtz. It's not even directed to that context.

1                   Twofold. One, I truly believe it's fairly well -- not fairly  
2 well -- extremely well defined. It's not definite at all in plain language  
3 described and desire to distinguish sign reflections versus actual light  
4 sources. Truly that is not taught in Holtz or any other reference.

5                   Any questions?

6                   JUDGE GARRIS: I understood a prior comment you made to  
7 indicate that the structure of the Holtz system and the structure of the  
8 claimed system are the same. The Examiner has made note of that in the  
9 answer and has indicated that if the structure is the same it must be that the  
10 Holtz system possesses the capability of performing the function that's  
11 required by claim 26. Is that true? And if not, what is in fact the difference  
12 between the two systems that enables the claim 26 system to perform the  
13 function that the Holtz system cannot?

14                  MR. SCHULTZ: Certainly my background is electrical  
15 engineering; computer engineering specifically, and I did man-machine  
16 interfaces for a living.

17                  Truly if you do not have some algorithm running in the  
18 computer they just sit there and do nothing. Virtually any one of your  
19 computers on your desk -- if you do not have something that makes the  
20 mouse or the keyboard interact with the screen, no matter what you do to it  
21 you're not going to get any differences on the screen; similar with a  
22 vehicular control system or vision system, or headlight control system.

23                  If you do not have something that runs an algorithm, some  
24 ability within the system to actually distinguish something from something  
25 else that there is nothing. Truly the hardware is identical. Truly in Holtz, no  
26 question about it; and that was why the limitation was added during the



1 course of prosecution, to get the clarification of what our system is really all  
2 about. I was unaware of the Holtz references. I was referring to Gentex  
3 because truly it is the algorithm that runs within the computer, in the system  
4 that would provide that.

5 JUDGE GARRIS: Have you disclosed the specific algorithms  
6 that would provide a function required by claim 26 in the specification?

7 MR. SCHULTZ: Truly. In paragraph 50 and 55, I believe we  
8 talk about two different ones, one that would pulse it such that you look for a  
9 code, a predetermined code that would pulse the light source and if you get  
10 that same code back in that you know it's a reflection and then secondly you  
11 just look for it to dim and if it dims correspondingly -- you tilt your lights to  
12 dim -- it's a direct correlation and reflection.

13 Conversely, if you do not see the code or you do not see the  
14 reduction in brightness, the system concludes that it's a constant light source  
15 from a vehicle.

16 JUDGE GARRIS: You're saying then, you disclosed the goal,  
17 which is the capability required by claim 26, distinguishing vehicular from  
18 non-vehicular lights, and then you describe generally the technique by which  
19 you achieve that.

20 Then my question I guess would be is there anything more  
21 specific than that in your specification disclosure that teaches one skilled in  
22 this art exactly how to achieve that using the generically disclosed  
23 techniques or do you rely upon the skill of the artisan to carry out the  
24 practice?

1           MR. SCHULTZ: Well, truly, we haven't gone to the level of  
2 actually describing whether one would use basic programming language or  
3 C-Plus-Plus or something more like current or even machine-level language.

4           But yes, we did indeed describe to at least myself who is only  
5 marginally skilled in the art how I would actually do it by either embedding  
6 a code in the lights or reducing the lights and looking for corresponding code  
7 or reduction in brightness.

8           So, truly, we did not actually say that I'm aware of that one  
9 would use C-Plus-Plus because there is no invention there. The invention  
10 truly is looking for that code or looking for the reduction in brightness which  
11 believe it or not is not in prior art. That is a major improvement in this  
12 system, is the ability to do that. It's actually quite a leap forward in the  
13 technology and a very problematic portion of anybody else's attempts to do  
14 it.

15           JUDGE GARRIS: Our time is really up. I would like to ask if  
16 there are any questions for Counsel Schultz. Judge Colaianni?

17           JUDGE COLAIANNI: No questions.

18           JUDGE GARRIS: Judge Robertson.

19           JUDGE ROBERTSON: No questions.

20           JUDGE GARRIS: Are you Examiner Gagliardi?

21           MR. GAGLIARDI: Yes.

22           JUDGE GARRIS: Let me just ask if there are any questions  
23 the judges might have of you. Judge Colaianni.

24           JUDGE COLAIANNI: No questions.

25           JUDGE GARRIS: Judge Robertson.

26           JUDGE ROBERTSON: No questions.

1 MR. GAGLIARDI: I have a comment.

2 JUDGE GARRIS: Please do.

3 MR. GAGLIARDI: One of the things when we talk, about  
4 coding: Actually, in the Holtz reference, on column two, it talks about one of  
5 the prior arts the gentleman referenced where that's exactly what they do; is,  
6 they have a different code and they recognize the code. So, that's all in the  
7 art, in column two.

8 But he has clarified Holtz as trying to distinguish one headlight  
9 or the vehicle's headlight from any other headlight. Also, one of the prior art  
10 references, in column two, uses a better term, foreign light versus -- well, it  
11 doesn't call it anything; but a foreign light is anything that's not from this  
12 vehicle.

13 On Holtz, a sign reflection is essentially light from your own  
14 vehicle. It's not foreign light; and Holtz says exactly that. It distinguishes  
15 its own light from -- I guess we would call it vehicular light; but it's exactly  
16 the same thing. I'm doing my best to find the difference here. That's exactly  
17 what Holtz does. It uses the sign reflection or glare to determine whether it's  
18 an oncoming vehicle or whether it's its own light. A sign reflection is the  
19 vehicle own light. They're indistinguishable.

20 JUDGE GARRIS: I had indicated to Counsel Schultz that he  
21 would have an opportunity to rebut your remarks. So, even though we are  
22 somewhat past your time, please do so.

23 MR. SCHULTZ: Very quickly. As the Examiner just pointed  
24 out, that is distinguishing one vehicle light source from another vehicular  
25 light source. The limitation that we added during the course of prosecution  
26 is explicitly saying a vehicular light source from a non-vehicular light

1 source, very, very critical; very, very different from Holtz, no teaching  
2 within Holtz at all distinguishing a vehicular light source from a  
3 non-vehicular light source.

4 Indeed, throughout Holtz, that's the improvement they brought  
5 to the table on the night vision system, is the ability to not have some other  
6 vehicular with the same equipment influence or impact the vehicle you're  
7 driving that has the system. So, it's a vehicular use versus a vehicular  
8 distinction, vehicular versus a non-vehicular source which is interesting.

9 In truth, that's what they patented in Holtz. The claims are  
10 issues directly based upon that coding, based nothing structurally different  
11 from the prior art to Holtz.

12 There is no computer program disclosed in Holtz at all. It's  
13 purely the improvement as distinguishing one vehicle light source from  
14 another vehicular light source, truly totally different problem; no solution to  
15 our problem whatsoever because our problem is that we wouldn't want our  
16 headlights to dim if it's a sign reflection that's causing it. The only time we  
17 want headlights to dim which again is described in our specification is when  
18 either a leading vehicle is detected via the taillights or an oncoming vehicle  
19 is detected via its headlights.

20 We do not want to dim our headlights under any other scenario;  
21 and the problem that existed in any systems up to when Gentex had this  
22 invention is that they were not able to distinguish reflections from signs or  
23 non-vehicular light sources from vehicular light sources, again totally  
24 different than Holtz.

1 JUDGE GARRIS: Gentlemen, thank you both for coming to  
2 the Board today and helping us to understand your respective issues. Good  
3 day to you both.

4 MR. SCHULTZ: Thank you very much.

5 Whereupon, at approximately 9:25 a.m., the proceedings were  
6 concluded.